

# Amazon Sales Analysis Report



This presentation will analyze Amazon sales data, examining key metrics, trends, and opportunities for growth.

# Introduction

Amazon is a leading global e-commerce platform, linking millions of sellers with customers around the world. Its extensive product range and robust services make it a key player in online retail.

This analysis focuses on Amazon's sales performance across various categories and regions.

In this report, we analyze sales data from Amazon to provide valuable insights into performance. By examining metrics such as total sales revenue, units sold, and growth trends, we aim to deliver actionable information that can enhance your sales strategies, highlight top-performing products, and identify opportunities for improvement.

# Objectives

## **Analyze Sales Trends**

Examine how sales vary over time.  
Analyze sales trend during month, year and month\_year.

## **Identify Key Metrics**

Assess key performance indicators such as revenue, profit, and cost.

## **Explore Relationships**

Investigate relationships between different variables such as item types, regions, and sales channels.

## **Predict Future Trends**

Utilize historical data to forecast future sales and profitability.



# Dataset Source(Sample Date)

	Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold	Unit Price	Unit Cost	Total Revenue	Total Cost	Total Profit
0	Australia and Oceania	Tuvalu	Baby Food	Offline	H	5/28/2010	669165933	6/27/2010	9925	255.28	159.42	2533654.00	1582243.50	951410.50
1	Central America and the Caribbean	Grenada	Cereal	Online	C	8/22/2012	963881480	9/15/2012	2804	205.70	117.11	576782.80	328376.44	248406.36
2	Europe	Russia	Office Supplies	Offline	L	5/2/2014	341417157	5/8/2014	1779	651.21	524.96	1158502.59	933903.84	224598.75
3	Sub-Saharan Africa	Sao Tome and Principe	Fruits	Online	C	6/20/2014	514321792	7/5/2014	8102	9.33	6.92	75591.66	56065.84	19525.82
4	Sub-Saharan Africa	Rwanda	Office Supplies	Offline	L	2/1/2013	115456712	2/6/2013	5062	651.21	524.96	3296425.02	2657347.52	639077.50

# Dataset Statistics

## Data Overview

Metric	Value
Shape of Dataset	(100, 14)
Number of Columns	14
Number of Observations	100
Number of Duplicate rows	0
Number of Missing Values	0
Memory Usage	11.1+ KB

## Column Types

Column Type	Count
Categorical	5
Numeric	6
Date Type	2
Text	1

# Analyze key metrics like total revenue, total cost, and total profit

Here are the key points in simple terms:

## Range:

- Revenue: \$4,870 to \$6 million
- Cost: \$3,612 to \$4.5 million
- Profit: \$1,258 to \$1.72 million

	Total Revenue	Total Cost	Total Profit
count	1.000000e+02	1.000000e+02	1.000000e+02
mean	1.373488e+06	9.318057e+05	4.416820e+05
std	1.460029e+06	1.083938e+06	4.385379e+05
min	4.870260e+03	3.612240e+03	1.258020e+03
25%	2.687212e+05	1.688680e+05	1.214436e+05
50%	7.523144e+05	3.635664e+05	2.907680e+05
75%	2.212045e+06	1.613870e+06	6.358288e+05
max	5.997055e+06	4.509794e+06	1.719922e+06

## Middle Values (Median):

- Revenue: \$752,314
- Cost: \$363,566
- Profit: \$290,768

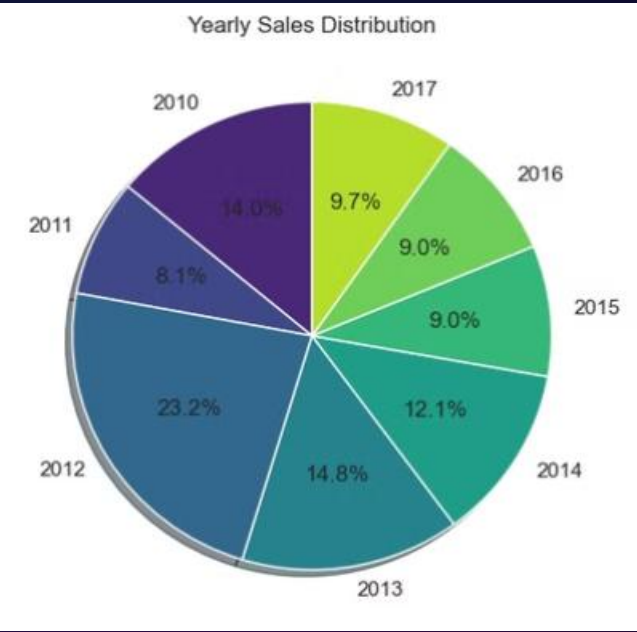
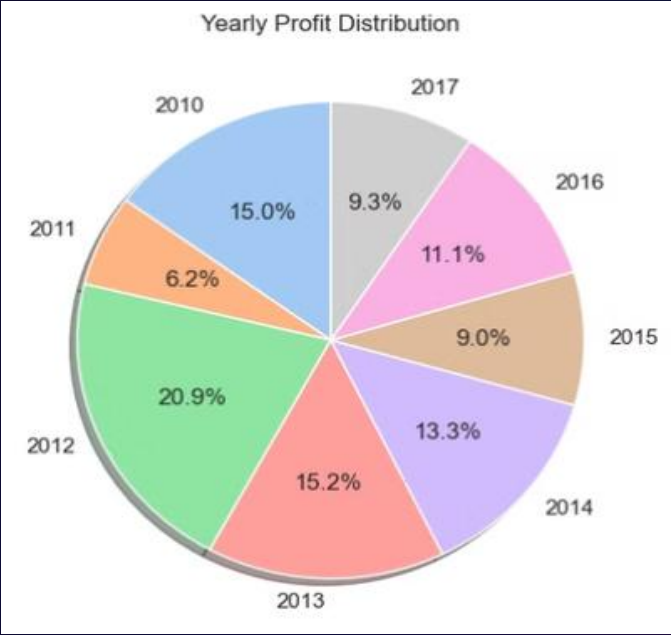
## Average Values:

- Revenue: \$1.37 million
- Cost: \$931,805
- Profit: \$441,682

## Variability:

- Revenue and Cost show a lot of variation, while Profit is less variable.

# Yearly Sales Trends(2010-2017)

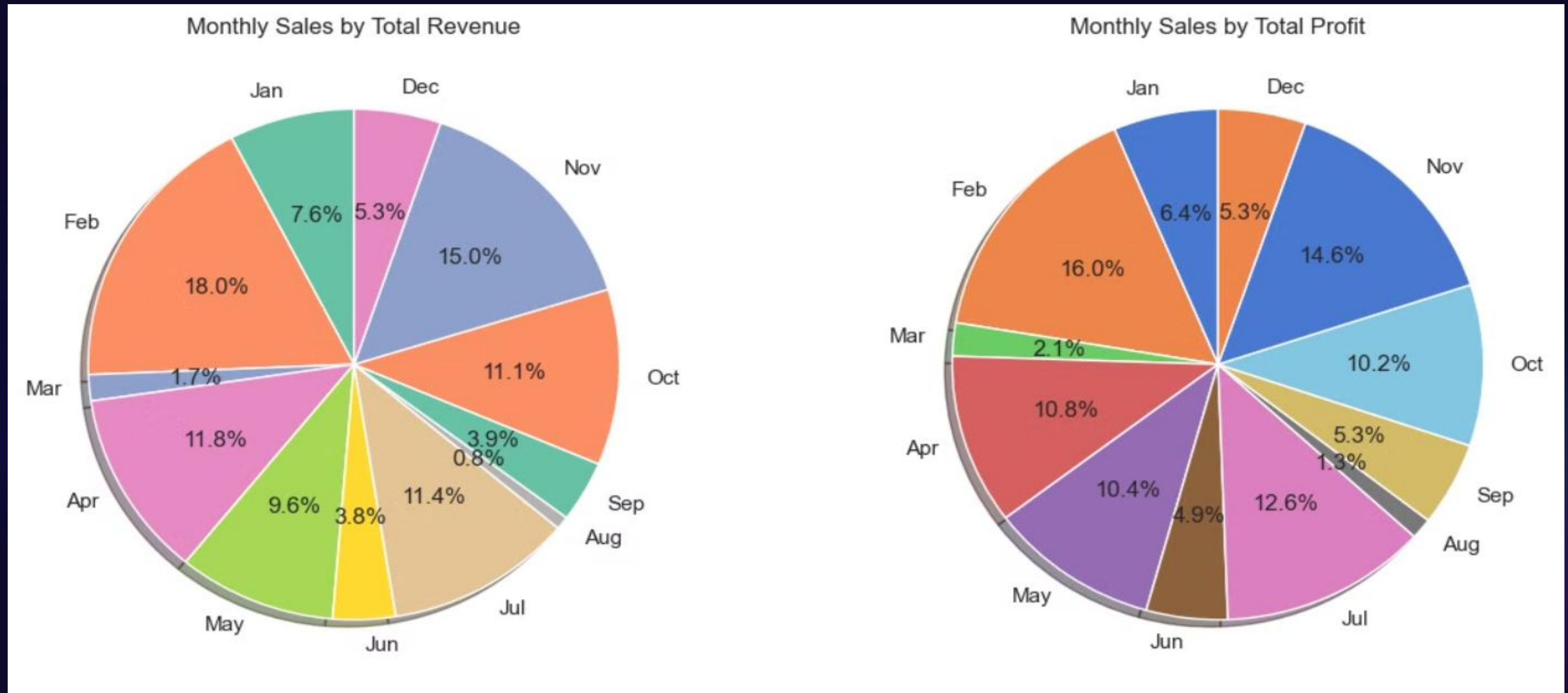


	Year	Total Revenue	Units Sold	Total Profit
0	2010	19186024.92	61571	6629567.43
1	2011	11129166.07	54768	2741008.23
2	2012	31898644.52	97967	9213010.12
3	2013	20330448.66	64663	6715420.04
4	2014	16630214.43	92040	5879461.68
5	2015	12427982.86	49480	3996539.44
6	2016	12372867.22	43156	4903838.01
7	2017	13373419.63	49226	4089353.45

The two pie charts show yearly sales and profit distributions from 2010 to 2017. Both charts show that 2012 was the best year for both sales and profit, while 2011 was the lowest.



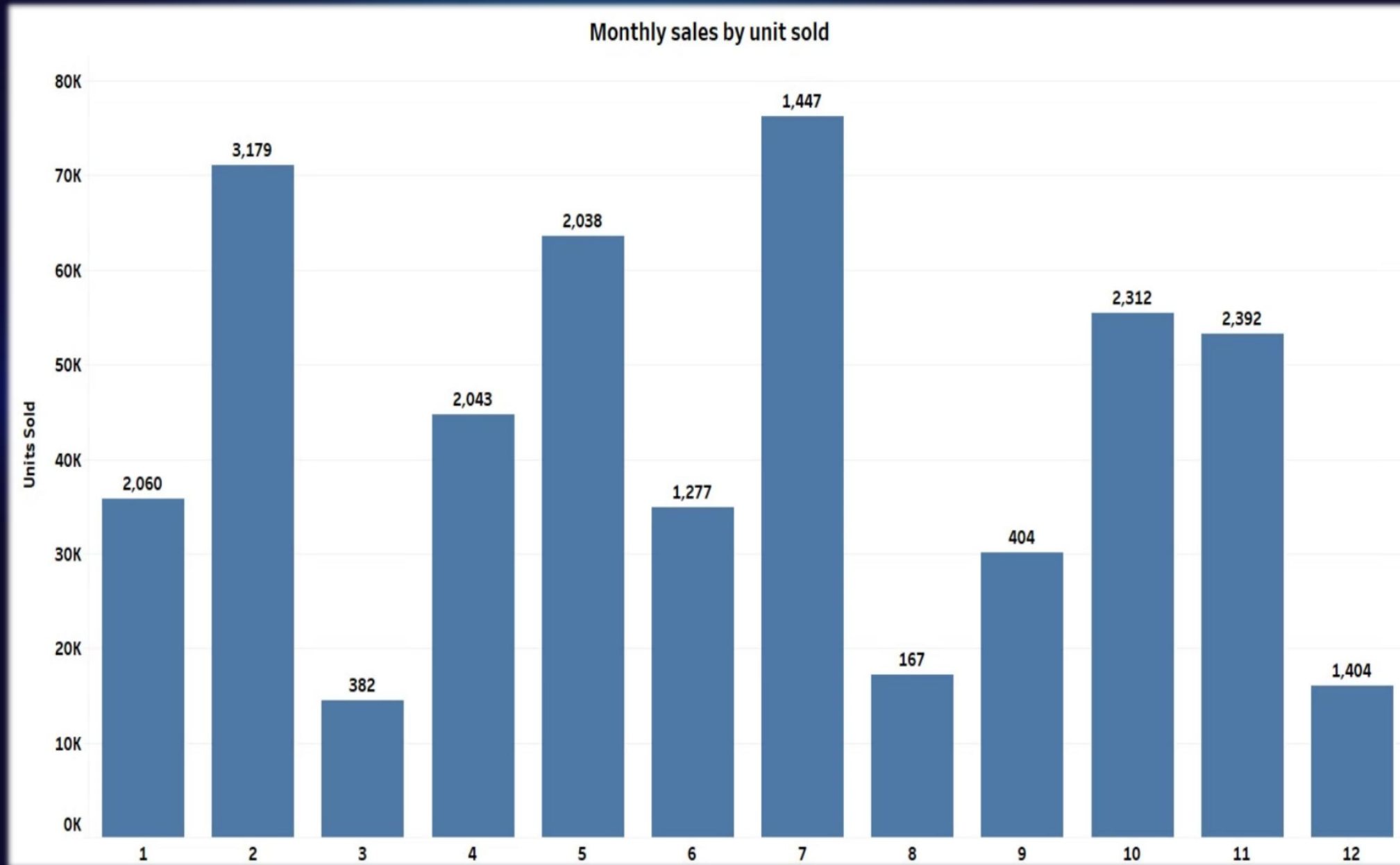
# Monthly Sales Trends



Both charts indicate that February and November performed well in terms of revenue and profit, while August had the lowest performance.

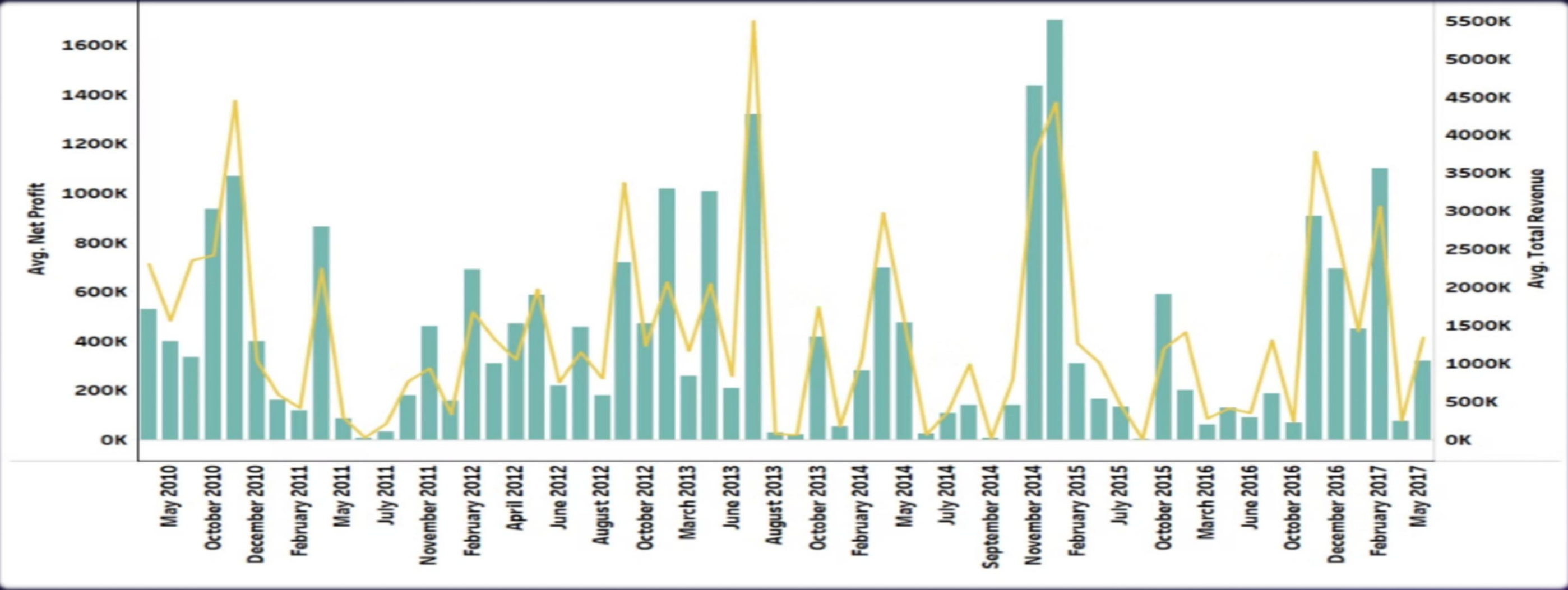


# Monthly Sales by Unit sold



This bar chart displays the total units sold each month, providing insight into the seasonal fluctuations and peak selling periods throughout the year.

# Average Net Profit & Revenue By Month-Year(2010-2017)

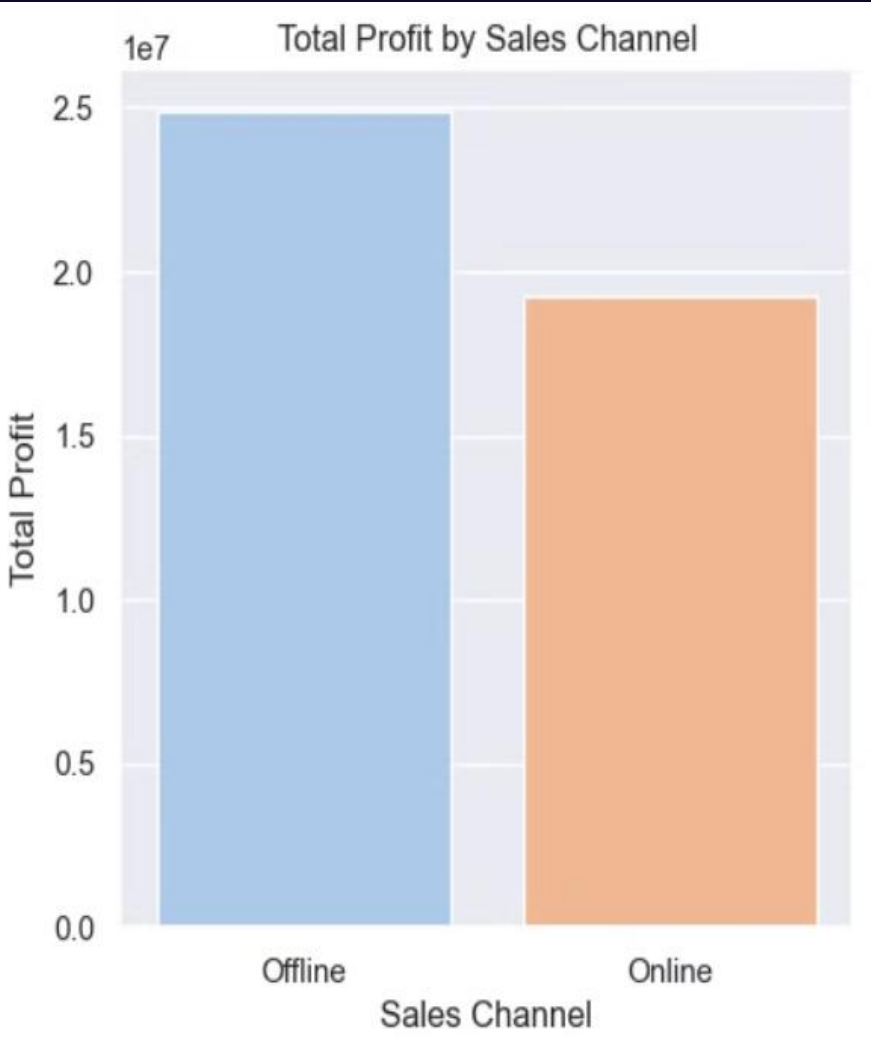
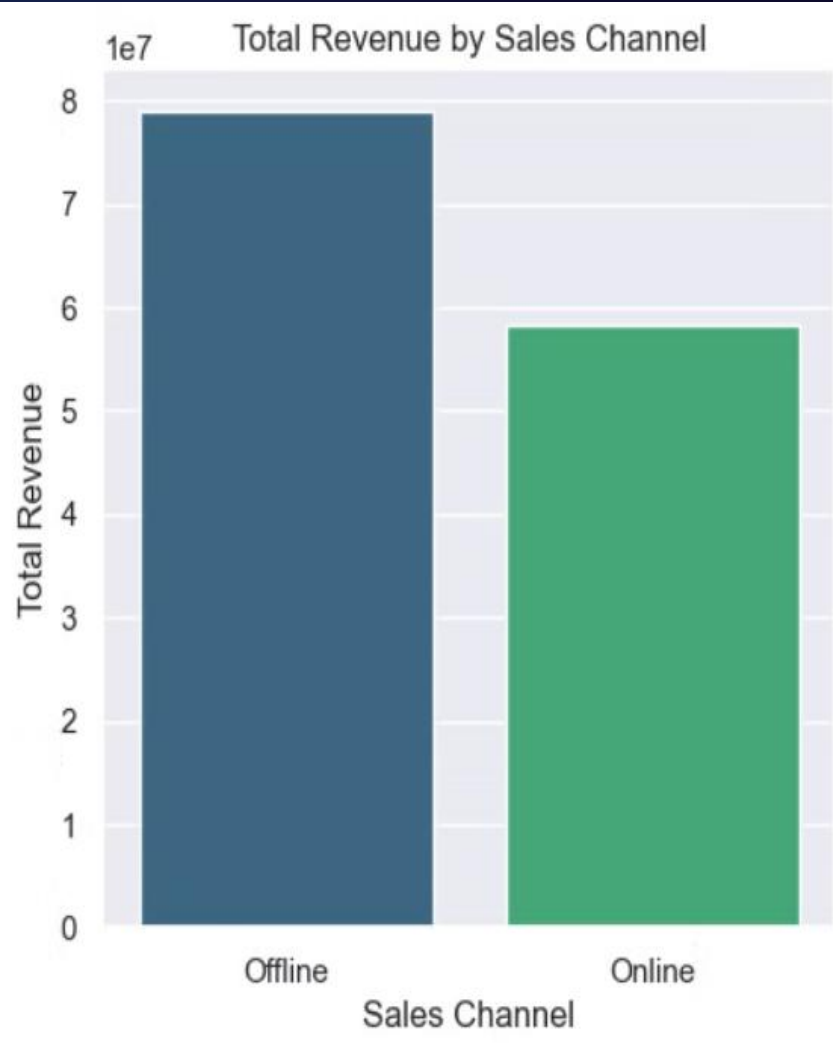


The yellow line represents the average net profit, while the vertical bars depict the revenue generated over the 2010-2017 period. This chart allows us to analyze the relationship between revenue and profitability on a monthly and annual basis, providing valuable insights into the business performance.

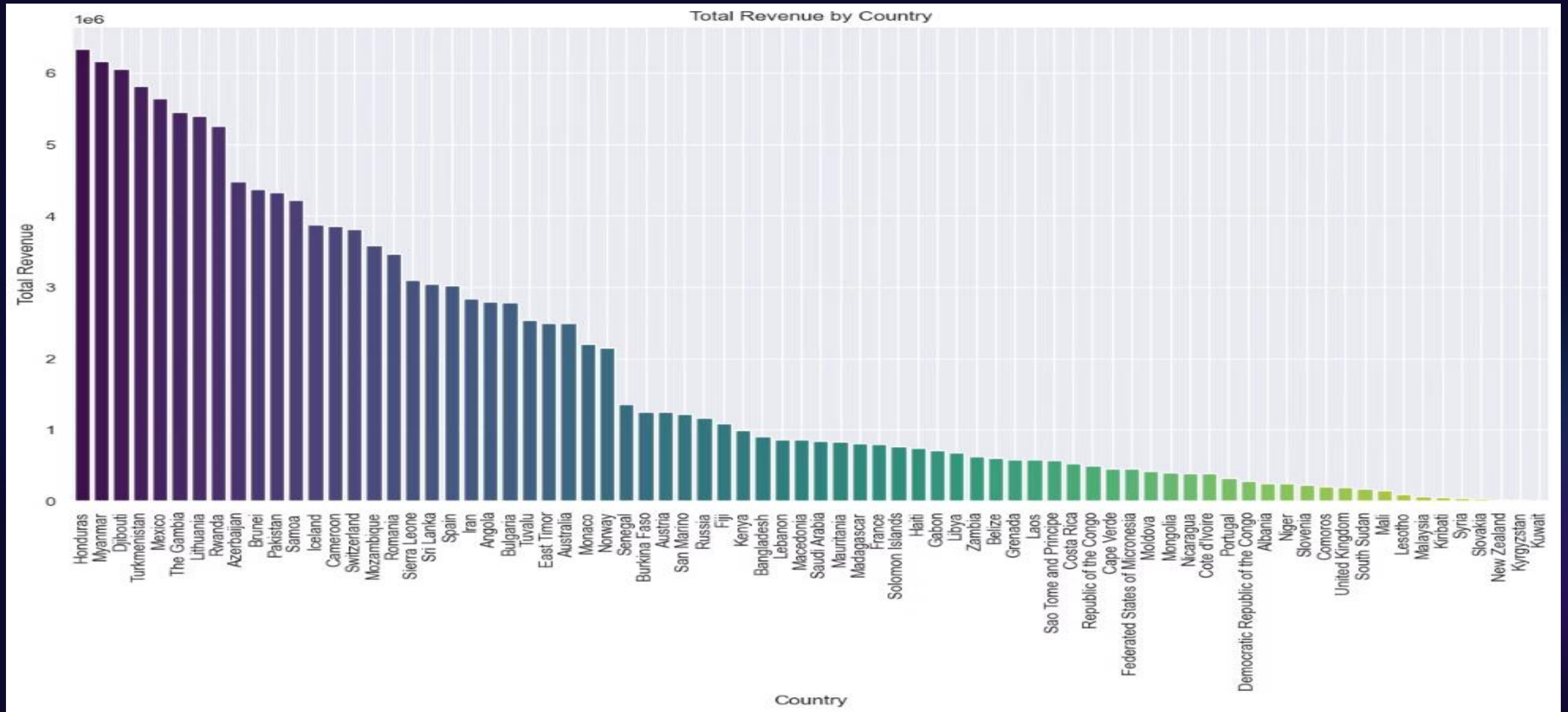
# Sales Channel Analysis

	Profit Margin	Sum Of Total Profit	Total Revenue
Offline	1,784	24,920,727	79,094,809
Online	1,837	19,247,472	58,253,959

Offline sales channel generates significantly higher total revenue and total profit than the online channel.



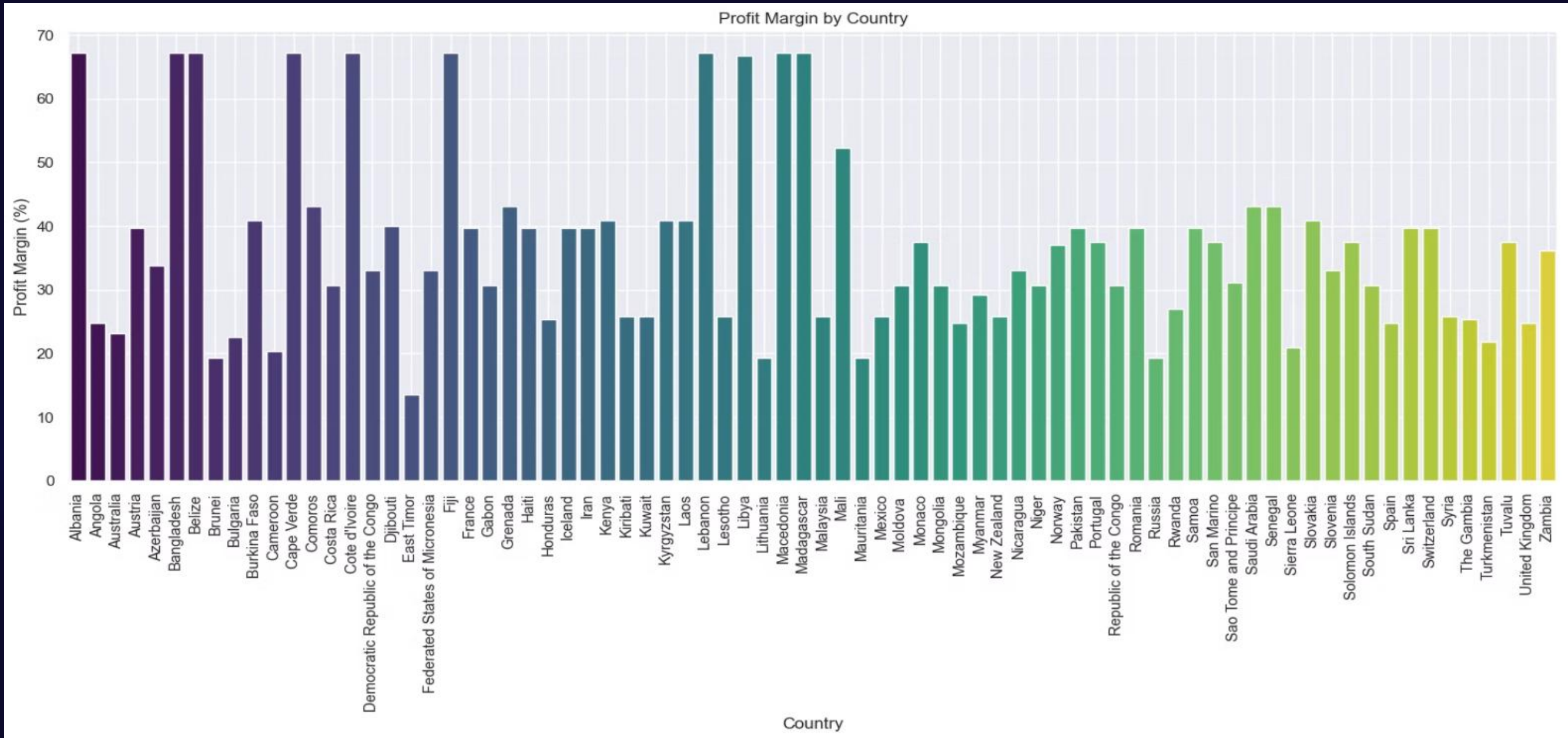
# Comprehensive Analysis of Revenue by Country



I visualize for which country has highest revenue. Based on the chart, Honduras has the highest total revenue, followed by Myanmar, Djibouti, and others.



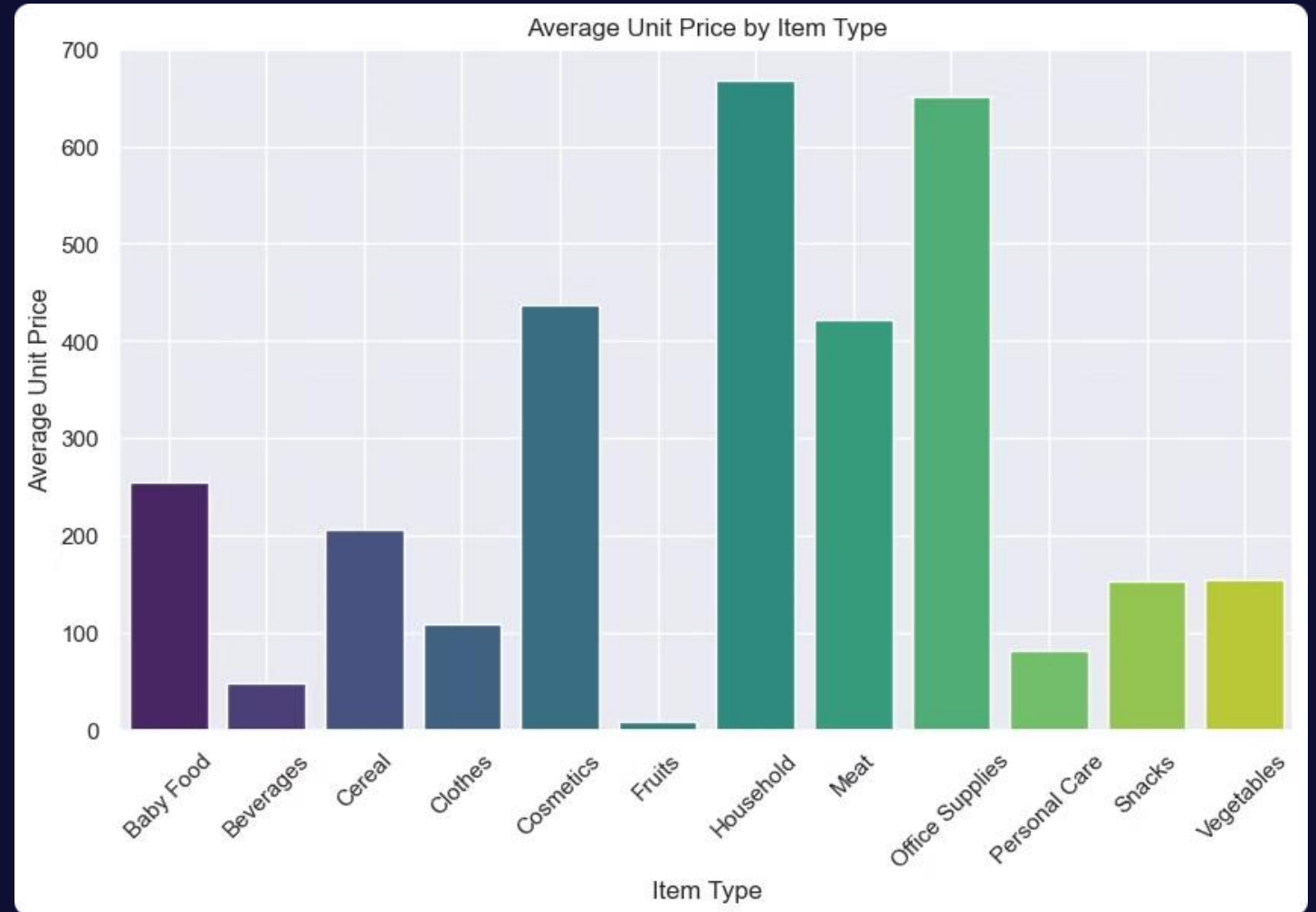
# Analysis of Profit Margin for each country



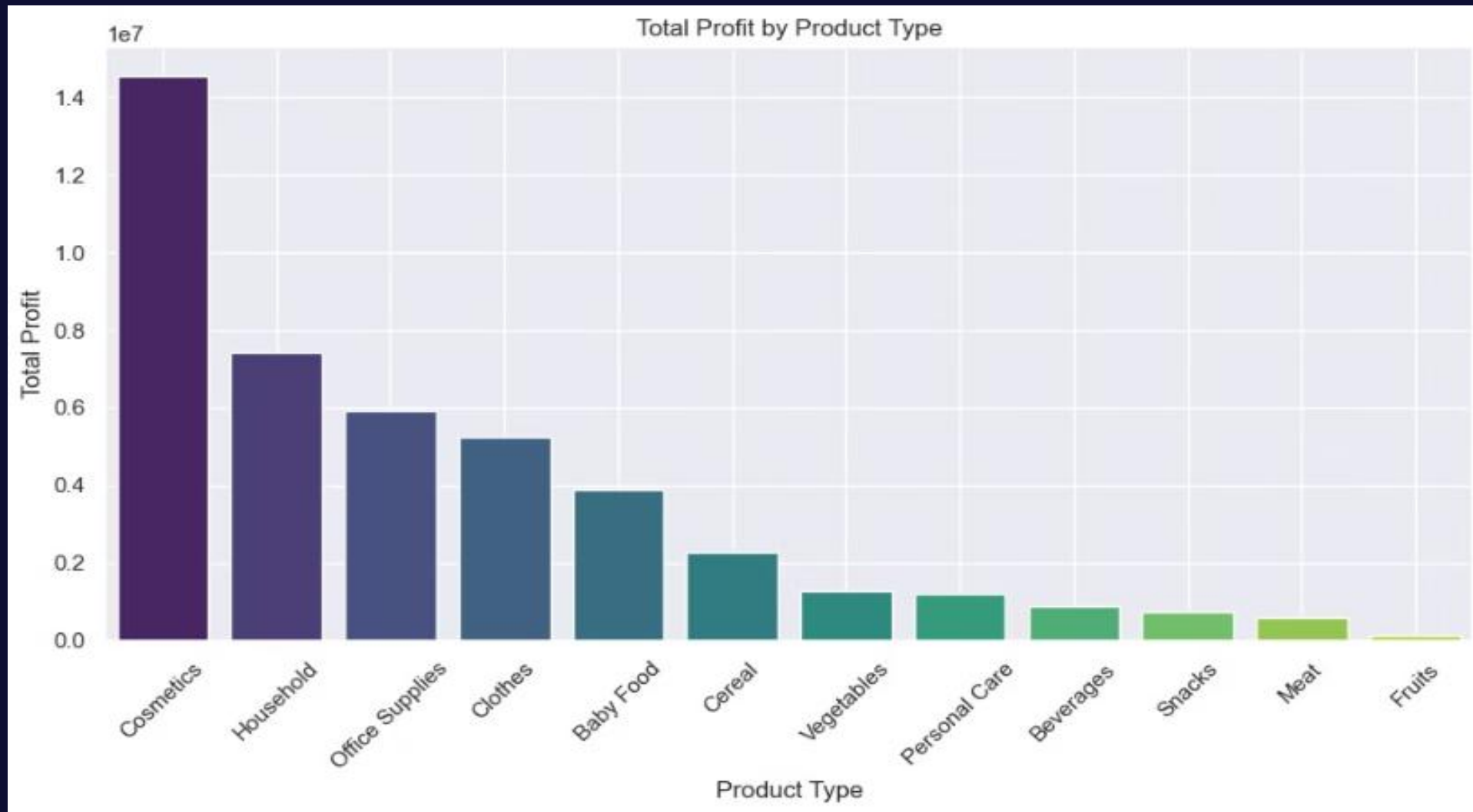
The profit margin chart illustrates the strong financial performance of the country, with consistently high profit margins across the years indicating efficient operations and healthy business growth.

# Average Unit price by unit sold

Observation: Household and Office supplies items have the highest average unit prices. Fruits have the lowest average unit price.



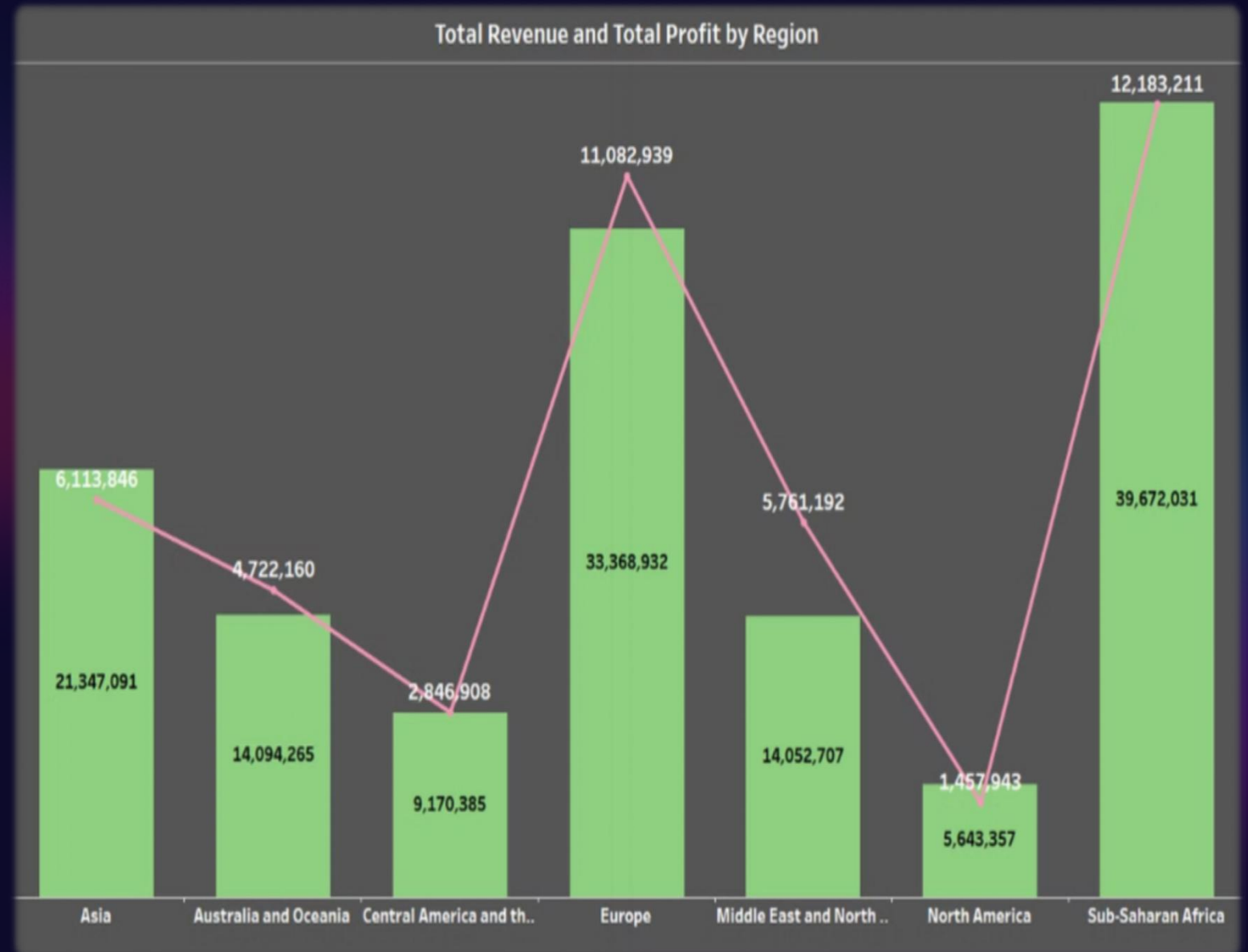
# High profitable Items



Cosmetics has high profitable whereas fruits is less.

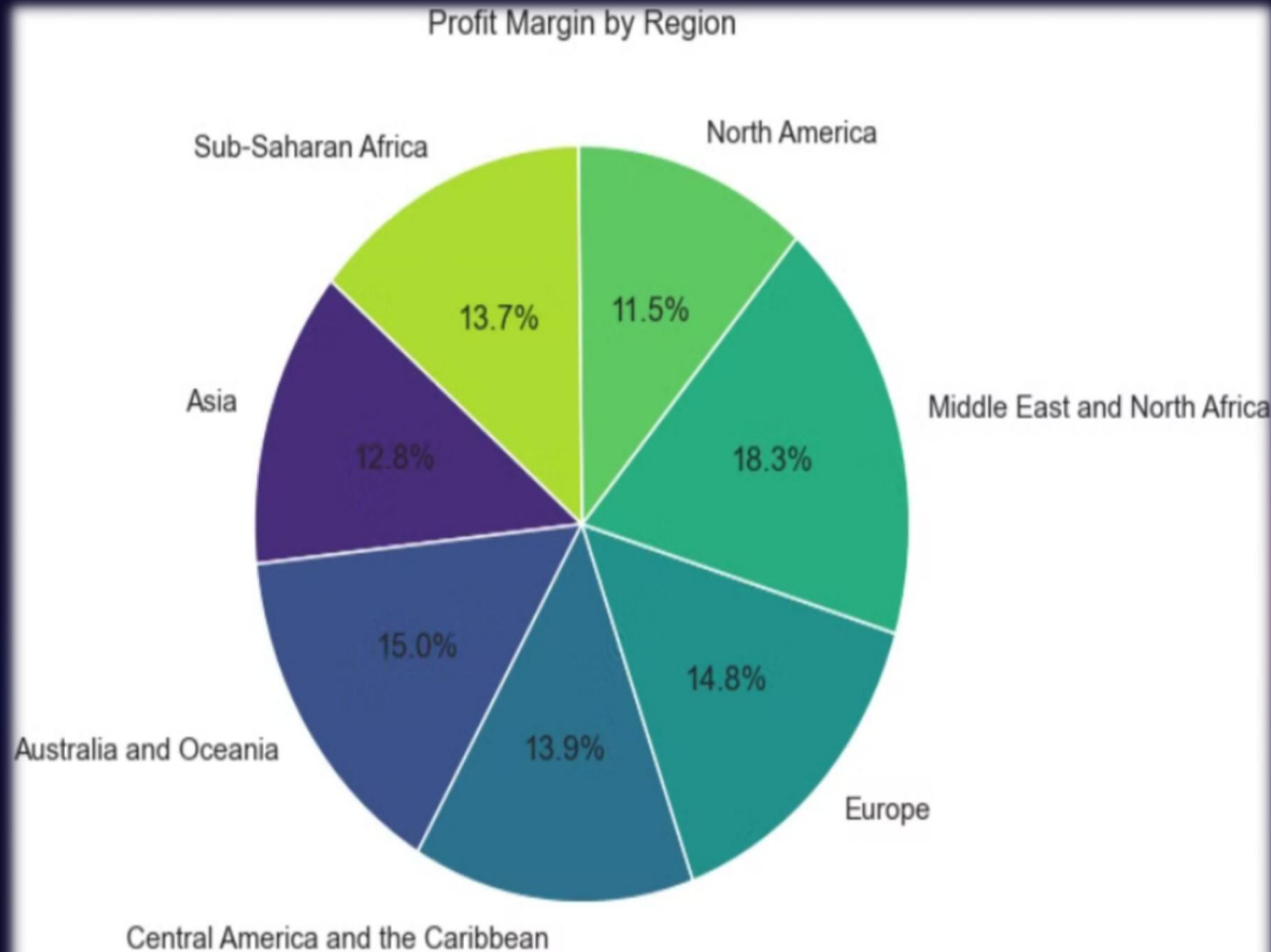
# Analysis of Total Revenue & Profit Region-wise

The chart shows total revenue (vertical bars) and profit (line) by region, with Sub-Saharan Africa and Europe having the highest amounts.





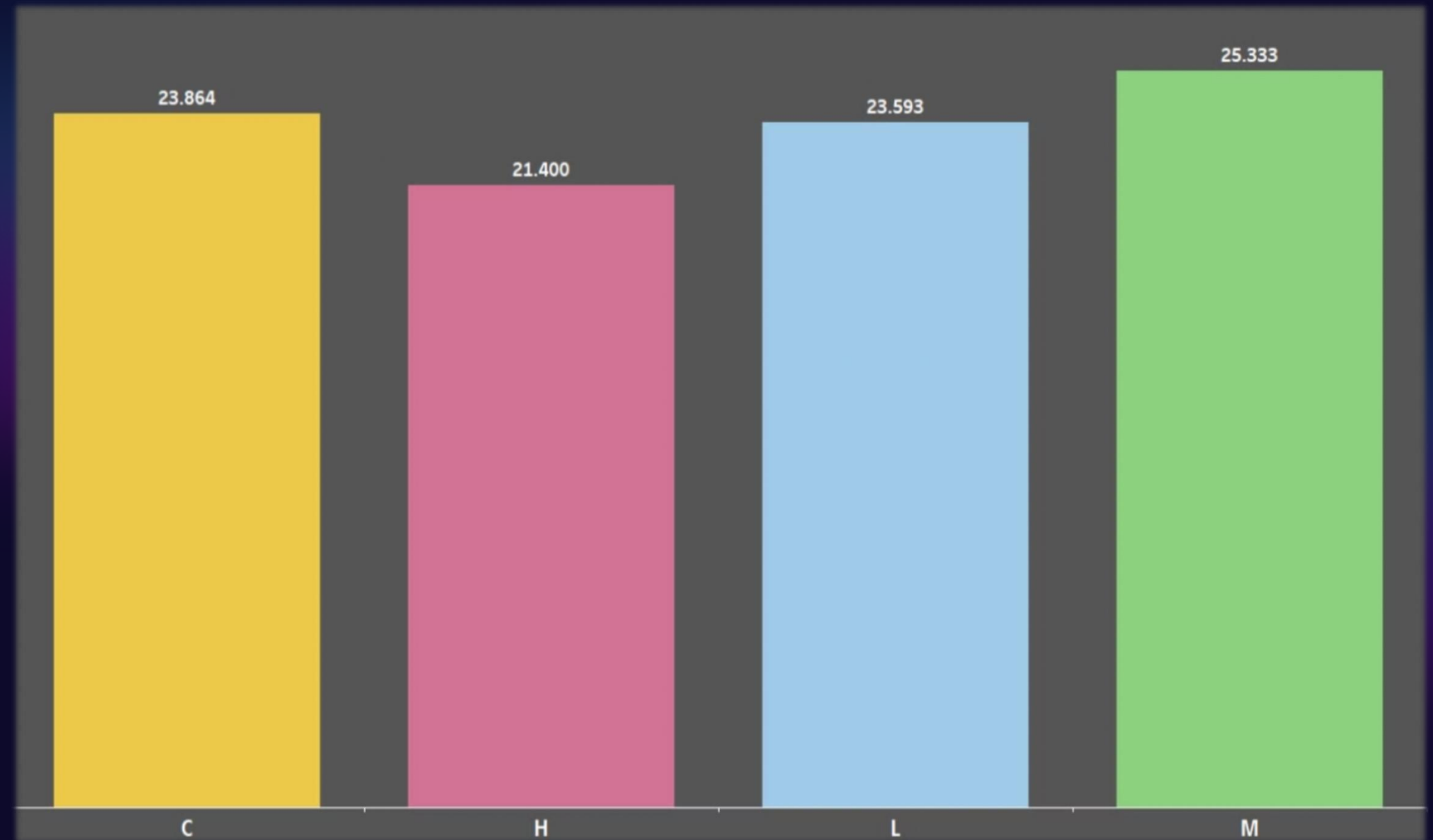
# Profit Margin by Region



Observation: Here the Middle East and North Africa has the highest profit margin at 18.3%, and North America has the lowest at 11.5%. Other regions have margins in between.

# Average Shipping Duration By Order Priority

The average shipping duration is shorter for higher priority orders. Orders with priority 'Express' have the fastest average shipping time.



# Global overview of how the business is performing in different parts of the world

Regions capture sales performance across the key continents and economic zones around the world.

- Sub-Saharan Africa
- North America
- Asia
- Middle East And North Africa
- Europe
- Central America and the Caribbean
- Australia and Oceania

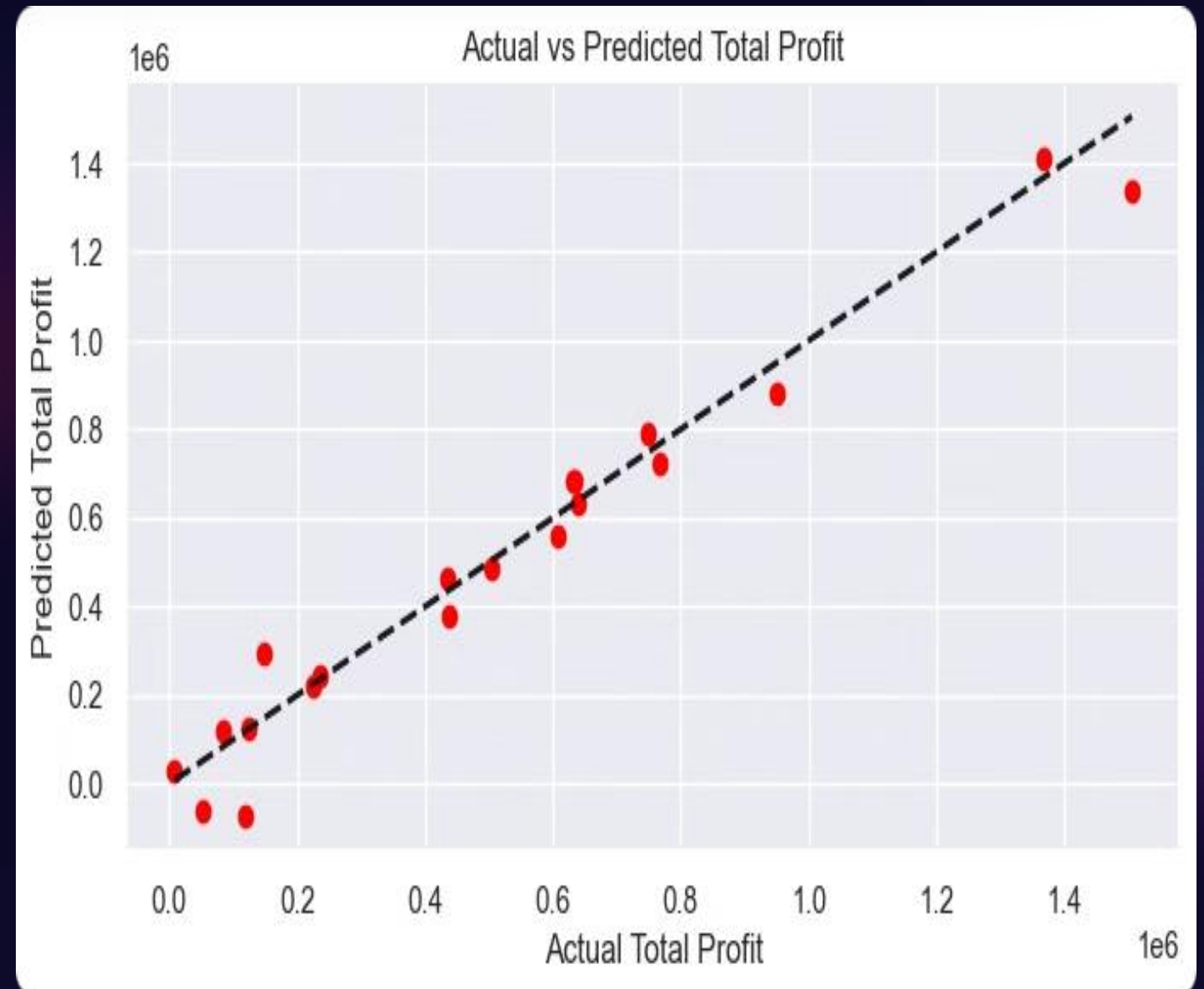
Europe and Sub-Saharan Africa have the highest concentration of sales activity on the map.



# Predictive Model Overview

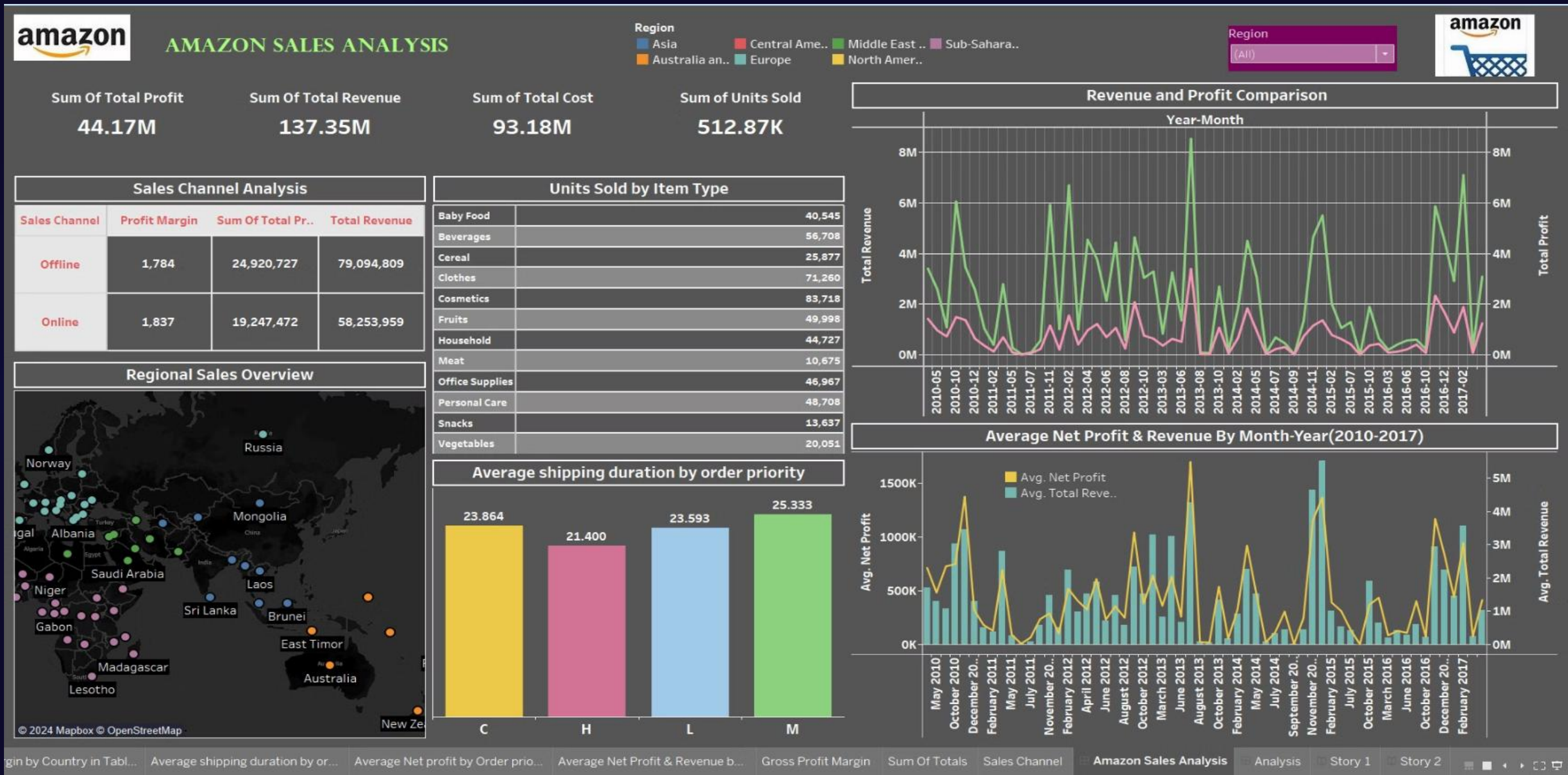
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LinearRegression ⓘ ?  
LinearRegression()
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The scatter plot compares actual total profit with predicted total profit, showing how well the model's predictions match the actual values. The black dashed line represents perfect prediction alignment.





# Amazon sales analysis Dashboard

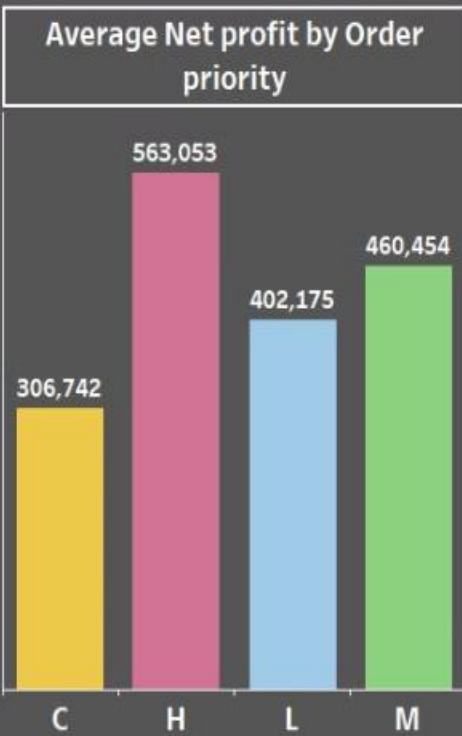
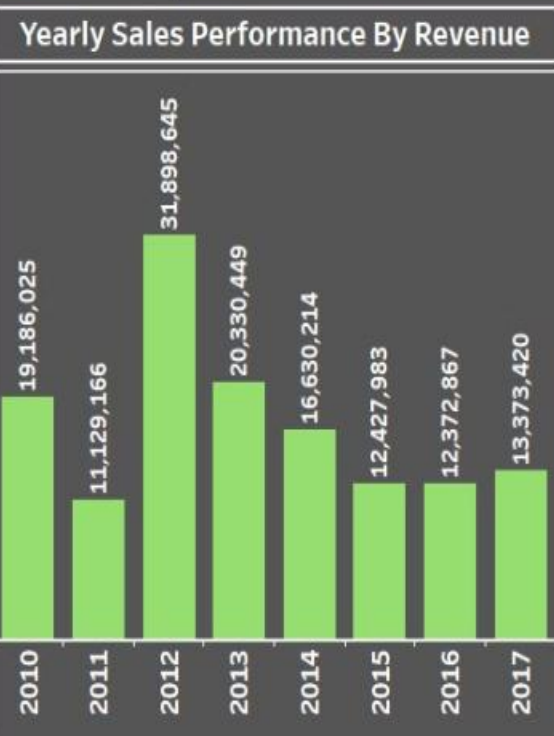
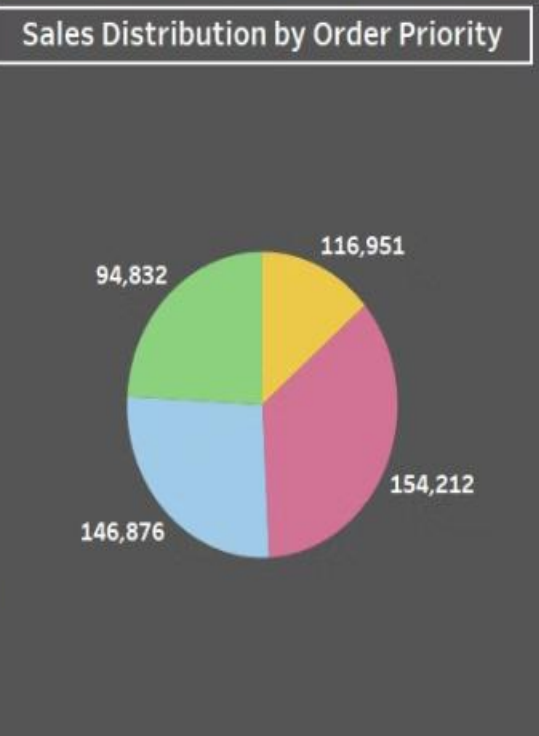
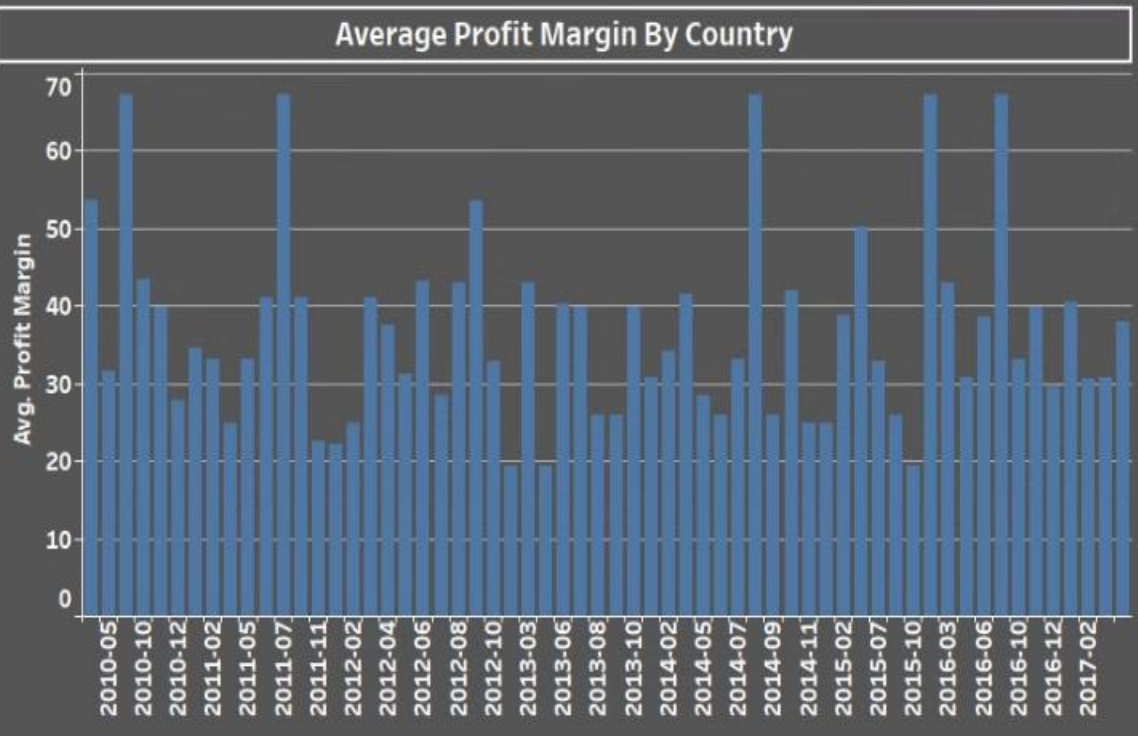
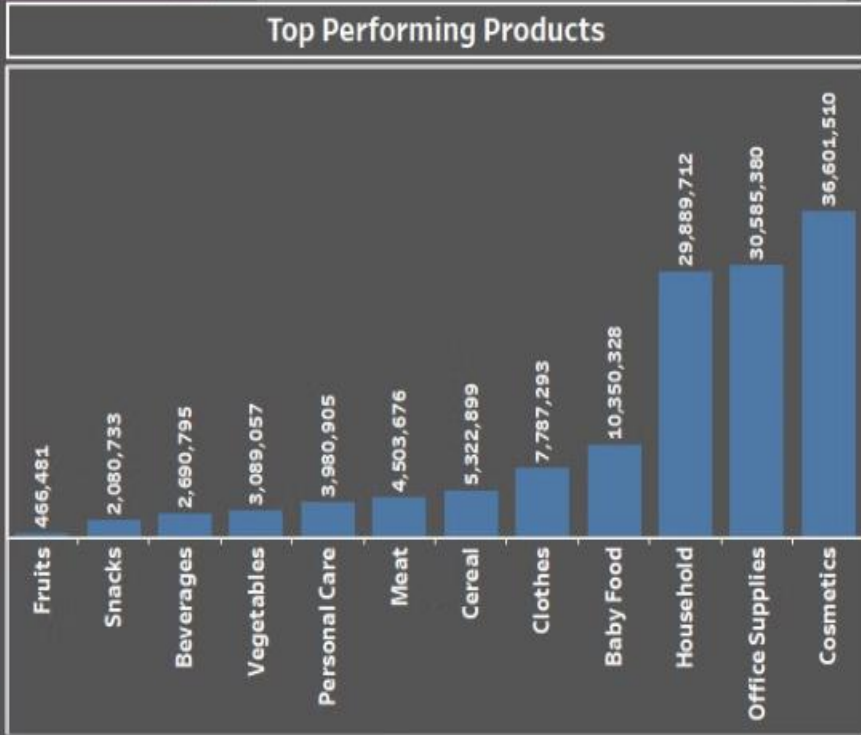
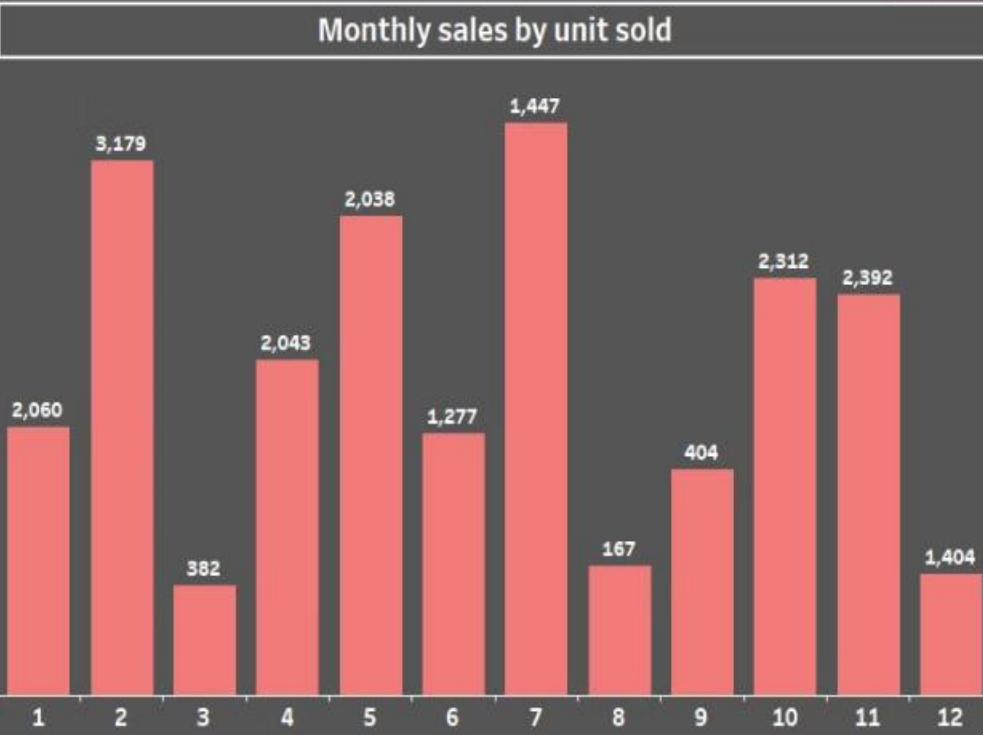
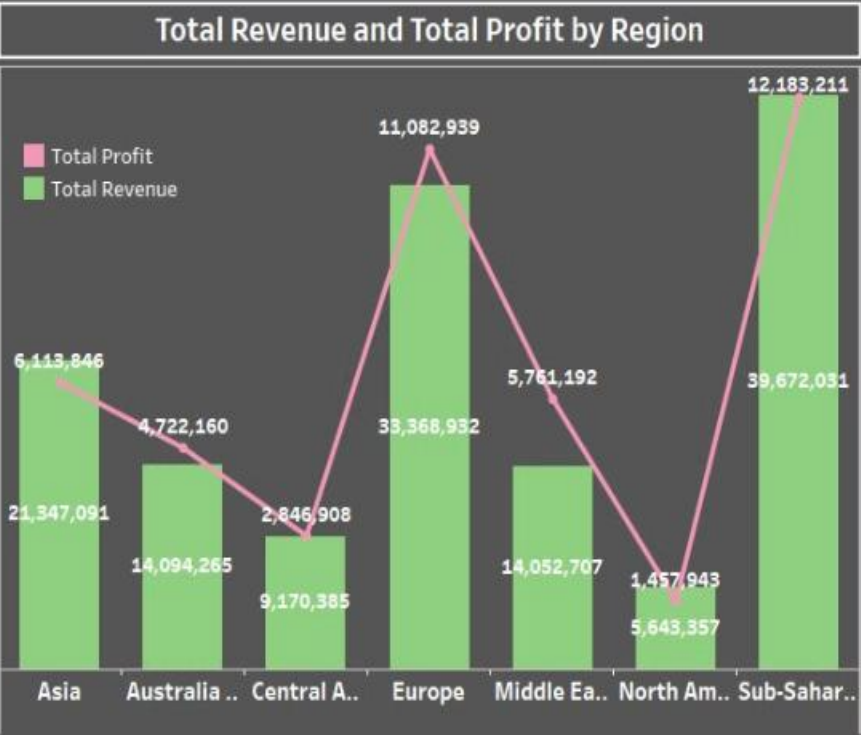


gin by Country in Tabl...Average shipping duration by or...Average Net profit by Order prio...Average Net Profit &amp; Revenue b...Gross Profit MarginSum Of TotalsSales ChannelAmazon Sales AnalysisAnalysisStory 1Story 2

# AMAZON SALES ANALYSIS

Region  
(All)

Order Priority  
C H L





# Conclusion

- The analysis reveals valuable trends and metrics crucial for strategic planning.
- Insights into sales trends, revenue, and profit across different dimensions can help optimize business operations and drive growth.
- Predictive models offer potential for future sales forecasting, enhancing decision-making and strategic planning.

Thank You